

### **REMARKS**

The present Amendment amends claims 1, 3, 7, 8, 10, 12, and 13, cancels claims 4-6, 9 and 11, and leaves claim 14 unchanged. Therefore, the present application has pending claims 1, 3, 7, 8, 10, and 12-14.

#### **Specification**

Applicants made minor editorial amendments to the specification. The amendments are fully supported by the specification, and do not introduce any new matter.

#### **Claim Objections**

Claims 4 and 5 stand objected to due to informalities noted by the Examiner. As previously indicated, claims 4 and 5 were canceled. Therefore, the objections regarding claims 4 and 5 is rendered moot.

#### **35 U.S.C. §103 Rejections**

Claims 1 and 3-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0023221 to Miyazaki et al. ("Miyazaki") in view of U.S. Patent No. 5,872,638 to Haze. As indicated previously, claims 4-6, 9 and 11 were canceled. Therefore, this rejection regarding claims 4-6, 9 and 11 is rendered moot. This rejection regarding the remaining claims 1, 3, 7, 8, 10 and 12-14 is traversed for the following reasons. Applicants submit that the features of the present invention, as now more clearly recited in claims 1, 3, 7, 8, 10 and 11-14, are not taught or suggested by Miyazaki or Haze, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, amendments were made to the claims to more clearly recite that the present invention is directed to a method of publishing signature log entries as recited, for example, in independent claim 1.

The present invention, as recited in claim 1, provides a method of publishing signature log entries having information about signatures generated by a user's side apparatus, where the method is implemented on a publication agency's side apparatus. The method includes receiving user's signature log entries generated by the user's side apparatus and publishing the user's signature log entries. The method also includes notifying users of having published the user's signature log entries. In the present invention, when the user's signature log entries have been received, the method includes generating a publication agency's signature log entry by using the received user's signature log entries, and updating a signature log having the publication agency's signature log entry previously produced and registered. The method further includes publishing the generated publication agency's signature log entry. Furthermore, the method includes notifying the users of having published the publication agency's signature log entry.

According to the present invention, the step of updating the signature log further includes where when the user's signature log entries have been received, a step is performed of generating the publication agency's signature log entry based on the received user's signature log entries and a plurality of other signature log entries, and recording the publication agency's signature log entry in a signature log file. Also, when the user's signature log entries have been received, a step is performed of recording information of the users and information of the received user's signature log entries in a user information file.

Also according to the present invention, the user information file includes signature numbers and a type indication. Additionally, the type indication indicates that the user signature log entries have been produced either at the time of transmission, at the time of reception, or at the time of publication, respectively,

Furthermore, according to the present invention, the step of notifying the users of having published the user's signature log entries further includes generating a publication notice of the user's signature log entries, so as to notify the users on the user's side apparatus of having published. The step also includes generating a signature from the generated user's signature log entry publication notice and previous signature log entries of the signature log, and adding the signature to the publication notice. Further, when the signature has been generated, the step includes recording the generated signature in the signature log. Even further, when transmission to the user is performed, the step includes updating information in the user information file, the information including the information of the users, the signature numbers specifying the generated signatures, and a transmission type indicating transmission to the user. Yet even further, the step includes transmitting the generated user's signature log entry publication notice to the users.

Further, according to the present invention, the step of notifying the users of having published the publication agency's signature log entry further includes searching for a partner user by searching for users to whom publication is to be notified from the user information file. The step further includes acquiring a transmission log range by searching for the log to be sent from the user information file. Furthermore, the step includes generating a publication agency's signature log entry publication notice notifying of having published the publication agency's signature log entry. Even further, the step includes generating a signature from the

generated publication agency's signature log entry publication notice and the signature log entries of the previous signatures. Still even further, when the signature is generated, the step includes updating the generated signature in the signature log. Yet even further, when transmission to the user is performed, the step includes updating information to be notified in the user information file, the information including the user information to be notified, the signature number specifying the generated signature, and a transmission type indicating transmission to the user. Furthermore, the step includes transmitting the generated publication agency's signature log entry publication notice to the users.

Also according to the present invention, the step of searching for a partner user further includes searching for the latest user's signature log entry and the previous latest user's signature log entry from among the user's signature log entries included in the user information file, and having a type indicative of having been published. The step also includes specifying a transmission partner user from information of the users included in the partner user's signature log entries indicating the type of transmission, from among user's signature log entries included between the searched two user's signature log entries.

Furthermore, according to the present invention, the step of acquiring the transmission log range further includes acquiring as the transmission log range sent to each partner user, signature log entries included between a signature log entry specified by a signature number included in the transmission partner user's signature log entry and a signature log entry specified by a signature number included in the latest user's signature log entry, from the user's signature log entries included between the searched two user's signature log entries. The prior art does not teach or suggest all of the above-described features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record. Specifically, the features are not taught or suggested by either Miyazaki or Haze, whether taken individually or in combination with each other.

Miyazaki teaches a method and system for recovering the validity of cryptographically signed digital data. However, there is no teaching or suggestion in Miyazaki of the method of publishing signature log entries as recited in claim 1 of the present invention.

Miyazaki discloses techniques for restoring and/or validating data and/or associated signature log entries. In one embodiment, a method for validating a restored message, having an entry generated in a signature log for a message, where the entry includes cryptographic information associated with the message, is provided. When the message is lost, the restored message is generated in response to request, and is validated using the signature log. In another embodiment, a method for validating a selected log entry by using a signature log having a plurality of recorded log entries is provided. The method includes computing a cryptographic value for the selected log entry, and determining if the cryptographic value is part of another recorded log entry. Miyazaki is quite different from the present invention.

One feature of the present invention, as recited in claim 1, includes where when the user's signature log entries have been received, the step of updating the signature log further includes recording information of the users and information of the received user's signature log entries in a user information file, where the user information file includes signature numbers and a type indication, and where the type indication indicates that said user signature log entries have been produced

either at the time of transmission, at the time of reception, or at the time of publication, respectively.

Another feature of the present invention, as recited in claim 1, includes where the step of notifying the users of having published the publication agency's signature log entry further includes: searching for a partner user by searching for users to whom publication is to be notified from the user information file; acquiring a transmission log range by searching for the log to be sent from the user information file; generating a publication agency's signature log entry publication notice notifying of having published the publication agency's signature log entry; generating a signature from the generated publication agency's signature log entry publication notice and the signature log entries of the previous signatures; when the signature is generated, updating the generated signature in the signature log; when transmission to the user is performed, updating information to be notified in the user information file, said information including said user information to be notified, said signature number specifying said generated signature, and a transmission type indicating transmission to the user; and transmitting the generated publication agency's signature log entry publication notice to the users.

Miyazaki does not disclose the above-described combination of features. For example, Miyazaki does not disclose specifying to whom the signature log entries should be transmitted and in what range. The present invention manages a user information file, which indicates that each signature entry from a signature log is produced either when "received", "transmitted" or "published". The user information file is referred to at an appropriate time. As a result, for example, in providing notification of the publication agency's signature log entry publication, it becomes possible to specify to whom the signature log entries should be transmitted and in

what range. This is quite different from Miyazaki.

By way of further example, Miyazaki does not disclose where when transmission to the user is performed, a step is performed of updating information to be notified in the user information file, the information including said user information to be notified, the signature number specifying said generated signature, and a transmission type indicating transmission to the user, and where a step is performed of transmitting the generated publication agency's signature log entry publication notice to the users.

With reference to page 30, line 12 to page 32, line 5, and Figs. 6B and 10, the present invention provides a processing flow of a log transmitting program 211. In step S1001, the partner who transmits the signature log is searched for from the user information file 214 on the publication agency. In this case, it specifies the user to which the publication agency sent the Web publication notice during the interval from when the latest newspaper publication signature log entry was published in the newspaper to when the previous newspaper publication signature log entry was published in the newspaper. Specifically, it examines the transaction log entries between the latest transaction log entry (record) with a code attached to the type 618 to show its newspaper publication and the previous transaction log entry with the latest newspaper publication code, searching for the transaction log entry with a transmission code attached to the type 618. The partner information 619 of that transaction log entry is the information about the partner who transmits the signature log.

For example, from the "newspaper" in the column of the type 618 of the user information file 214, it will be understood that the record 615 is the transaction log entry at the time of the latest newspaper publication and that the record 610 is the

transaction log entry at the time of the previous newspaper publication. Of the records 611.about.614, the records at the "transmission" registered in the column of type 618 are records 612 and 614. From the partner information 619 of records 612 and 614, it will be seen that the partners to whom the signature log is to be sent are users A and B.

In step S1002, the range of the signature log that is to be transmitted to the user specified in step S1001 is determined by use of the user information file 214. First (1), it finds out the signature number of the transaction log entry having recorded therein the signature log partner specified in step S1001. Next (2), it checks the signature number of the latest published-on-newspaper signature log entry. The range of the log to be transmitted is from the signature number of (1) to that of (2). If the user A is specified by record 612 in step S1001 as the partner to which the signature log is to be sent, the range of signature log in which the values of signature number 617 are 1 ~ 5 is to be transmitted to the user A because the value of item 617 of record 612 and the value of signature number 617 of record 615 are 1 and 5, respectively. These features of the present invention, as recited in the claims, are quite different from Miyazaki.

Yet another feature of the present invention, as recited in claim 1, includes where the step of acquiring the transmission log range further includes acquiring as the transmission log range sent to each partner user, signature log entries included between a signature log entry specified by a signature number included in the transmission partner user's signature log entry and a signature log entry specified by a signature number included in the latest user's signature log entry, from the user's signature log entries included between the searched two user's signature log entries. Miyazaki does not disclose this feature.



With reference to Fig. 6A, a signature or received publication signature log entry information included in signature log entries 601 and 603 is shown. The status in which received messages with a signature is provided. A signature sign (-) is not contained in signature log entries 601 and 603. That is to say, in the present invention, an entry without a signature exists in the signature log. In contrast, Miyazaki does not disclose providing an indicating of an entry without a signature.

Therefore, Miyazaki fails to teach or suggest where the step of updating the signature log further comprises where “when the user’s signature log entries have been received, recording information of the users and information of the received user’s signature log entries in a user information file, wherein said user information file includes signature numbers and a type indication, and wherein the type indication indicates that said user signature log entries have been produced either at the time of transmission, at the time of reception, or at the time of publication, respectively” as recited in claim 1.

Furthermore, Miyazaki fails to teach or suggest “wherein said step of notifying the users of having published the publication agency’s signature log entry further comprises: searching for a partner user by searching for users to whom publication is to be notified from the user information file; acquiring a transmission log range by searching for the log to be sent from the user information file; generating a publication agency’s signature log entry publication notice notifying of having published the publication agency’s signature log entry; generating a signature from the generated publication agency’s signature log entry publication notice and the signature log entries of the previous signatures; when the signature is generated, updating the generated signature in the signature log; when transmission to the user is performed, updating information to be notified in the user information file, said

information including said user information to be notified, said signature number specifying said generated signature, and a transmission type indicating transmission to the user; and transmitting the generated publication agency's signature log entry publication notice to the users" as recited in claim 1.

Further, Miyazaki fails to teach or suggest "wherein said step of acquiring the transmission log range further comprises acquiring as the transmission log range sent to each partner user, signature log entries included between a signature log entry specified by a signature number included in the transmission partner user's signature log entry and a signature log entry specified by a signature number included in the latest user's signature log entry, from the user's signature log entries included between the searched two user's signature log entries" as recited in claim 1.

The above noted deficiencies of Miyazaki are not supplied by any of the other references of record, namely Haze, whether taken individually or in combination with each other. Therefore, combining the teachings of Miyazaki and Haze in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Haze teaches a facsimile machine for storing and printing communication log information depending on whether the log information meets a specific condition. However, there is no teaching or suggestion in Haze of the method of publishing signature log entries as recited in claim 1 of the present invention.

Haze discloses a facsimile machine that stores log information pertaining to facsimile transmission and reception in a facsimile RAM. To output a facsimile management report, log information items are read one by one from the RAM. It is then determined whether the read out log information meets a specific condition.

Only log information which does not meet the specific condition is stored in a printer RAM and then printed by a printer. Thus, by taking a condition of log information not needed by the operator and inputting it as the specific condition, for example, log information not desired to be printed can be left out of the printing process.

One feature of the present invention, as recited in claim 1, includes where when the user's signature log entries have been received, the step of updating the signature log further includes recording information of the users and information of the received user's signature log entries in a user information file, where the user information file includes signature numbers and a type indication, and where the type indication indicates that said user signature log entries have been produced either at the time of transmission, at the time of reception, or at the time of publication, respectively.

Another feature of the present invention, as recited in claim 1, includes where the step of notifying the users of having published the publication agency's signature log entry further includes: searching for a partner user by searching for users to whom publication is to be notified from the user information file; acquiring a transmission log range by searching for the log to be sent from the user information file; generating a publication agency's signature log entry publication notice notifying of having published the publication agency's signature log entry; generating a signature from the generated publication agency's signature log entry publication notice and the signature log entries of the previous signatures; when the signature is generated, updating the generated signature in the signature log; when transmission to the user is performed, updating information to be notified in the user information file, said information including said user information to be notified, said signature number specifying said generated signature, and a transmission type indicating

transmission to the user; and transmitting the generated publication agency's signature log entry publication notice to the users. Haze does not disclose the above-described combination of features, and the Examiner merely relies on Haze for teaching a type indication.

Yet another feature of the present invention, as recited in claim 1, includes where the step of acquiring the transmission log range further includes acquiring as the transmission log range sent to each partner user, signature log entries included between a signature log entry specified by a signature number included in the transmission partner user's signature log entry and a signature log entry specified by a signature number included in the latest user's signature log entry, from the user's signature log entries included between the searched two user's signature log entries. Haze does not disclose this feature, and the Examiner merely relies on Haze for teaching a type indication.

Therefore, Haze fails to teach or suggest where the step of updating the signature log further comprises where "when the user's signature log entries have been received, recording information of the users and information of the received user's signature log entries in a user information file, wherein said user information file includes signature numbers and a type indication, and wherein the type indication indicates that said user signature log entries have been produced either at the time of transmission, at the time of reception, or at the time of publication, respectively" as recited in claim 1.

Furthermore, Haze fails to teach or suggest "wherein said step of notifying the users of having published the publication agency's signature log entry further comprises: searching for a partner user by searching for users to whom publication is to be notified from the user information file; acquiring a transmission log range by

searching for the log to be sent from the user information file; generating a publication agency's signature log entry publication notice notifying of having published the publication agency's signature log entry; generating a signature from the generated publication agency's signature log entry publication notice and the signature log entries of the previous signatures; when the signature is generated, updating the generated signature in the signature log; when transmission to the user is performed, updating information to be notified in the user information file, said information including said user information to be notified, said signature number specifying said generated signature, and a transmission type indicating transmission to the user; and transmitting the generated publication agency's signature log entry publication notice to the users" as recited in claim 1.

Further, Haze fails to teach or suggest "wherein said step of acquiring the transmission log range further comprises acquiring as the transmission log range sent to each partner user, signature log entries included between a signature log entry specified by a signature number included in the transmission partner user's signature log entry and a signature log entry specified by a signature number included in the latest user's signature log entry, from the user's signature log entries included between the searched two user's signature log entries" as recited in claim 1.

Both Miyazaki and Haze suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Miyazaki and Haze in the manner suggested by the Examiner does not render obvious the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a)

rejection of claims 1, 3, 7, 8, 10 and 12-14 as being unpatentable over Miiyazaki in view of Haze are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1, 3, 7, 8, 10 and 12-14.

In view of the foregoing amendments and remarks, Applicants submit that claims 1 and 3, 7, 8, 10 and 12-14 are in condition for allowance. Accordingly, early allowance of claims 1 and 3, 7, 8, 10 and 12-14 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (referencing Attorney Docket No. 500.42984X00).

Respectfully submitted,

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